# EXHIBIT D

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT COURT OF CALIFORNIA

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| KEYTRAK, INC.,<br><br>Plaintiff,<br><br>vs.<br><br>KEY REGISTER, L.L.C., KEY REGISTER SYSTEMS, INC., and KEY MANAGEMENT, INC.<br><br>Defendants. | Case No.: C 03-00870 WHA<br><br>SUPPLEMENTAL REPORT OF JAMES R. ADAMS, PH.D. IN SUPPORT OF KEY REGISTER, L.L.C.'S AND KEY REGISTER SYSTEMS, INC.'S COUNTERCLAIM FOR DECLARATORY RULING AND AFFIRMATIVE DEFENSES THAT KEYTRAK, INC'S U.S. PATENT NO. 6,501,379 IS INVALID AND UNENFORCEABLE AND REBUTTAL TO EXPERT REPORT OF DR. JAMES HARRIS SUBMITTED ON BEHALF OF KEYTRAK, INC. DATED DECEMBER 23, 2003 |

Submitted December 29, 2003

The information in this report is provided exclusively to the law firm of Shughart, Thomson & Kilroy, P.C. for use in its representation of Key Register, L.L.C., et al., in litigation versus KeyTrak, Inc. The technical analyses expressed in this Report are those of TAEUS, are not intended to and should not be construed as a legal opinion.

**Contents** **Page**

I, James R. Adams, Ph.D., declare that the opinions stated in this Report are my own, that I have personal knowledge of the facts stated in this report, and am competent to testify to the facts and opinions within. If called as a witness, I can and will testify to the following:

## I. INTRODUCTION

My full name is James R. Adams, and Shughart, Thomson & Kilroy, P.C., counsel for Defendants Key Register, L.L.C., *et al.*, has retained me as an expert witness to provide an expert opinion on the validity of U.S. Patent No. 6,501,379 (the "' 379 Patent"), assigned to KeyTrak, Inc. ("KeyTrak").

The opinions in this report incorporate my earlier opinions with respect to the invalidity of the ' 379 Patent, which I expressed in an Affidavit, dated September 4, 2003 ("September 4 Invalidity Affidavit"), and unenforceability, which I expressed in an Affidavit also dated September 4, 2003 ("September 4 Unenforceability Affidavit"), and in a Report dated December 12, 2003, ("December 12 Report") all of which have been exchanged with KeyTrak's counsel. I reserve the right to further supplement this report, if and when appropriate, based upon information learned subsequent to the creation of this report.

## II. BACKGROUND AND QUALIFICATIONS

I have over thirty-five years of experience in the electronics industry. I received my BS, MS, and Ph.D. degrees in Electrical Engineering from the University of Nebraska in Lincoln, Nebraska. In addition to my formal education, I have taken over 1,000 continuing education hours in the areas of microelectronics, materials science, telecommunications, data conversion and transmission, management of quality, radiation effects, and technical management. I am a Senior Member of IEEE and a member of the Electrochemical Society. My expertise includes reverse engineering, process integration, device physics, optical and electronic properties of

materials, semiconductor memories and microprocessors, failure analysis, software, and radiation effects in microelectronics. I also have a broad base of knowledge in product development, long-range strategic technology planning and transfer of technologies from laboratory to production, acquired at such companies as Sandia National Laboratories, INMOS Corporation, and United Technologies Microelectronics Center. At Sandia National Laboratories, Inmos Corporation, Monolithic Memories, and United Technologies Microelectronics center, I developed technology for static and dynamic random access memories, non-volatile memories, and microprocessors. In addition to teaching courses at the University of Nebraska and Sandia National Laboratories, I have also held an appointment as an Adjunct Professor at the University of Colorado, Colorado Springs. Since 1993 I have worked as Vice President of Engineering for TAEUS, specializing in forensic technology analysis in support of intellectual property licensing. Since joining TAEUS, I have reviewed over 5,000 patents in the areas of microelectronics, telecommunications, materials, software, and systems.

I have been qualified by a federal District Court during a preliminary injunction hearing as an expert witness in microelectronics hardware and software, with particular expertise in reverse engineering. I have also been qualified by another federal District Court during a Markman hearing to render opinions in the subjects of electrical engineering, hardware design, and memories. I have also been qualified by another federal District Court during a trade secret trial as an expert in electrical engineering and hardware design. I have twenty-six publications and over sixteen presentations at technical conferences, and am an inventor on three patents.

I have read and am fully familiar with the ' 379 Patent, and the other patents discussed herein. I have also reviewed and am familiar with the prosecution history of the ' 379 Patent. I have also read and am familiar with the other documents referenced in this report. By virtue of

my education, experience and training, I have expertise in the arts addressed by these patents and had such expertise, training and knowledge at the time that these patent applications were filed and prosecuted. A complete copy of my curriculum vitae is attached to my December 12 Report.

The hourly rates charged by TAEUS for my services in this matter are as follows:

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| Senior Expert | $450.00 |
| Research Assistant | $250.00 |
| Deposition/Testifying Time | $600.00 |
| Travel Time | $100.00 |

## III. INFORMATION CONSIDERED AND MATERIALS REVIEWED

I considered the references itemized in my December 12 Report in forming my opinions in this Report. Additional documents that I have considered in since submitting my December 12 Report are itemized below:

### A. Patents

1. "OBJECT CARRIERS FOR AN OBJECT CONTROL AND TRACKING SYSTEM" U.S. Patent Application 10/005,235 Publication No. US 2002/0044055, April 18, 2002.and selected pages from its prosecution history (Bates: KT-C-0013270-281; KT-C-0006832-43; KT-C-0013243-69) (the '235 Application).

### B. Court Documents

1. "ORDER DENYING LEAVE TO FILE YET ANOTHER SUMMARY JUDGEMENT MOTION AND DENYING BIFURCATION", United States District Court for the Northern District of California; Case No. C 03-00870 WHA, December 17, 2003.

2. "EXPERT REPORT OF PROFESSOR JAMES HARRIS OFFERED IN OPPOSITION TO INITIAL EXPERT REPORT OF JAMES R. ADAMS, PhD" United States District Court for the Northern District of California; Case No. C 03-00870 WHA, December 23, 2003.

3. "DECLARATION OF MICHAEL R SLOBASKY, ESQ" United States District Court for the Northern District of California; Case No. C 03-00870 WHA, December 12, 2003.

4. "EXPERT REPORT OF MICHAEL R SLOBASKY, ESQ" United States District Court for the Northern District of California; Case No. C 03-00870 WHA, December 11, 2003.

5. Deposition Testimony of William C. Maloney, November 14, 2002, in Case No. 1:01-CV-0115 (RWS) (N.D.Ga).

**C. Other Documents**

1. "USPTO Manual of Patent Examining Procedure (MPEP) section 2141.03 "Level of Ordinary Skill in the Art" and 2145 "Consideration of Applicant' s Rebuttal Arguments"- 2100 Patentability".

2. 35 U.S.C. Section 112

I am informed that counsel for Defendants has previously provided copies of all of these documents to counsel for KeyTrak, unless they are documents sponsored or provided by KeyTrak in discovery, or have been issued by the Court, in which case KeyTrak' s counsel already has them.

## IV. DISCUSSION

This report provides information that is supplemental to my Report dated December 12, 2003, and addresses the expert report submitted by Dr. James Harris dated December 12, 2003 ("Report"), and submitted on behalf of KeyTrak, Inc.

Pages 10-17 of Dr. Harris's Report contain "Assumptions" that he has made in forming his opinions. These "Assumptions" are based upon what he has been told by KeyTrak's counsel. It does not appear that he has made an attempt to validate his assumptions or to get "the rest of the story." This affects his ability to render an independent opinion in this case. Relying on unvalidated assumptions, particularly those taken out of context of the whole, is dangerous. As a scientist, I'm sure that Dr. Harris would never publish a paper in which all of his conclusions are based upon unverified assumptions provided by another scientist, particularly one who is outside of his field. Some of these questionable "Assumptions" are discussed below.

On Page 11 of his Report, Dr. Harris discusses the novelty of an invention, and assumes that the quotation from 35 U.S.C. § 102 (a) & (b) is the proper standard. However he does not appear to be informed that paramount among the patentability requirements is that which is sought to be patented **must be new**. Therefore, the U.S. Court of Appeals for the Federal Circuit has indicated that the real reason for denying patent rights is the basic principle that no patent should be granted that withdraws from the public domain technology already available to the public. (*See* U.S. Patent and Trademark Office ("USPTO") Manual of Patent Examination Procedures ("MPEP"), Section 2145, "Granting a patent on the discovery of an unknown but inherent function (here venting steam or vapor) would remove from the public that which is in the public domain by virtue of its inclusion in, or obviousness from, the prior art)." (*See In re Wiseman*, 596 F.2d 1022; 201 USPQ at 661; *In re Baxter Travenol Labs.*, 952 F.2d 388, 21 USPQ2d 1281 (Fed. Cir. 1991)). Prior art is knowledge that is available, including what would be obvious from it, at a given time, to a person of ordinary skill in an art. It must be remembered that patents are to be given only for inventions that promote the progress of science and the useful arts. "Obvious" improvements do not do so in a meaningful way.

Dr. Harris has been misinformed and has made an incorrect assumption on Page 13 of his Report when he states that he has assumed, "a person of ordinary skill in the art … is not one who undertakes to innovate." The complete quotation from the *Standard Oil Co. v. American Cyanamid Co*., 774 F.2d 448 (Fed.Cir. 1985) case is: "A person of ordinary skill in the art is also presumed to be one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate, whether by patient, and often expensive, systematic research or by extraordinary insights, it makes no difference which." The technology relevant to the ' 379 Patent does not require "patient, and often expensive, systematic research" nor does it require

"extraordinary insights" to achieve the key tracking and control system disclo sed in the ' 379 Patent. As demonstrated in the Claim Charts analysis attached to my December 12 Report, all of the relevant elements of the asserted claims in the ' 379 Patent are explicitly taught in the six related prior art references identified in the Claim Charts.

The USPTO MPEP section 2141.03 states:

> "The "hypothetical ' person having ordinary skill in the art' to which the claimed subject matter pertains would, of necessity have the capability of understanding the scientific and engineering principles applicable to the pertinent art. *Ex parte Hiyamizu*, 10 USPQ2d 1393, 1394 (Bd. Pat. App. & Inter. 1988)"

This statement is what is used as the standard by the USPTO for a judging obviousness under 35 U.S.C. section 103. Also, a person having ordinary skill in the art ("PHOSITA") must be interpreted differently for a Section 103 obviousness analysis than for a Section 112 enablement analysis. The section 103 PHOSITA must be a problem solver that works hypothetically to solve the same problem solved by the inventor. (*See Orthopedic Equip. Co. v. United States*, 702 F.2d 1005, (Fed. Cir. 1983); *In re Grout*, 377 F.2d 1019 (C.C.P.A. 1967)). Admittedly, the Section 103 obviousness PHOSITA is not particularly exceptional, because the *Standard Oil* case appears to restrict the person to conventional thinking, but the Section 103 obviousness PHOSITA is still someone who is trying to solve new problems. By contrast, the Section 112 enablement PHOSITA demonstrates no innovative tendency, but is simply a user of the technology. Dr. Harris appears to have improperly limited his definition of a "person having ordinary skill in the art" to the Section 112 criteria.

On page 16 of his Report, under the heading "Commercial Success," Dr. Harris ignores the fact that the Key Register product did not infringe any of the original claims of the ' 379

Patent because they were found to be unpatentable by the USPTO's Examiner after reviewing the "50 Ways to Touch Memory" ("50 Ways") reference. It was only after KeyTrak modified the claims of the '379 Patent to cover the Key Register product did the possibility of infringement arise. (*See* prosecution history of '379 Patent; Bates PH1:089 to PH1:116.).

On page 17 of his Report, it is clear that Dr. Harris does not understand the nature and scope of the invention disclosed in the '379 Patent. The technology involved does not require "a complex system integration of devices and technology from a broad range of disciplines." Mr. Maloney made his first patent disclosure when only about two years out of school with a bachelor's degree in engineering. (*See* Deposition of William Maloney, November 14, 2002, taken in *KeyTrak, Inc. v. Key Register Systems, Inc., et al.,* Civil Action No. 1:01-CV-0115 (RWS), at 4-5, attached as Exhibit 1; Deposition of William Maloney, April 24, 2003, at 218-219, 221, attached as Exhibit 2.). (*See also,* U.S. Patent No. 5,801,628, filed September 5, 1996, issued September 1, 1998.). There are no "sophisticated computer networking and interfacing problems" that need to be solved. All of the computer programming and interface technology had been solved years earlier and everything needed for accessing the 1-wire Dallas Semiconductor memory devices specified in the '379 Patent is provided by Dallas Semiconductor.

On page 18 of his Report, Dr. Harris is wrong when he states: "I site as support for this statement that there are at least thousands of engineers who could create such a system if they understood the application, but there are only four individuals who appear as patentees on the range of patents for trackable objects in the prior art…" He ignores the fact that KeyTrak had both Maloney and Singleton involved in the development of the KeyTrak system. He also ignores the inventors on the 90-odd patents listed as references in the '379 Patent. There are at

least 72 different names listed as primary inventors on these patents, other than Mr. Maloney. In addition, on pages 18 and19 of his Report, Dr. Harris appears to be unaware that KeyTrak presently does not make a system such as he describes here.

In his analysis of the prosecution history on pages 19-22 of his Report, Dr. Harris chooses to ignore the fact that the Examiner required that claims 80, 81, and 82 be combined, and throughout his report he ignores the fact that the examiner rejected claims with substantially the same claim limitations as those that were ultimately allowed, and he offers no analysis of the differences to demonstrate what he believes the patentable distinctions are (if any) between the rejected claims and the allowed claims, or to show what innovative step was required on the part of Mr. Maloney. It is likely that he was unable to articulate these distinctions because there are none.

On page 23 of his Report, I do not "appear to o pine that the pertinent scope and content of the prior art is contained in the 90 references that were cited during prosecution." Not all of the "references" are "prior art" (as discussed in my September 4 Affidavit and December 12 Report), nor are all of the "references" pertinent. In my December 12 Report, I focus on the most pertinent references (Morse Watchmans ' 324 International Application and 50 Ways) and the four references (Maloney ' 687 International Application, DS2407 Data Sheet, Application Note 104 and Application Note 106) that were not before the examiner at the time of his allowance of the claims of the ' 379 Patent.

On pages 23 and 24 of his Report, Dr. Harris discusses the Saliga patent (USPN 5,038,023), the Morse Watchmans Application (WO 95/04324) and the KeyTrak PCT Application (WO 97/09687). As discussed in my December 12 Report, the Saliga patent is not relevant prior art because it uses a bar code to identify the key tags. Dr. Harris avoids defining

"prior art" for the purposes of identifying specific references as "prior art". He avoids accepting the definition proposed by KeyTrak's counsel. (*See* KeyTrak, Inc.'s Answers to Key Management, Inc.'s First Set of Interrogatories, p. 3, served August 20, 2003.). He even states "However, informed discussion on the legal nuances of "admitted prior art" is outside of the scope of my present engagement." If Dr. Harris cannot identify and comment on what "prior art" is and is not, with respect to the '379 Patent then he cannot form appropriate conclusions about whether the "prior art" teaches the elements of the asserted '379 Patent claim limitations. If he has blindly accepted what he has been told by KeyTrak's counsel what is and what is not prior art for the purposes of his analysis, then his analysis is defective, because he cannot distinguish what is applicable as "prior art" and what is not.

On page 24 of his Report, Dr. Harris agrees that the Morse Watchmans '324 International Patent Application shows a system that is capable of storing trackable objects such as key tags in a secure compartment, such as a drawer. "Saliga, Morse Watchmans, and the KeyTrak PCT Application all are capable of storing trackable objects such as key-tags in a secure storage compartment, such as a drawer." However, Dr. Harris is splitting hairs when he states "None of these prior art systems, however, provided means of locating any particular trackable object in the storage compartment by placing an identifying illuminating device, such as a LED, on the trackable device that can be selectively activated to provide visible identification to the user." The only item in the above statement that is not explicitly shown in the Morse Watchmans '324 International Patent Application is "on the trackable device". As discussed in my December 12 Report, it would have been obvious to a person having ordinary skill in the art to move the LED of the Morse Watchmans '324 International Patent Application from beside the key tag to on the

key tag, particularly in view of a "50 Ways" reference. The motivation to do so would be to simplify the wiring inside of the cabinet.

On page 24, section 2 of his Report, Dr. Harris states: "In the following analysis, I will review the differences between the more salient, individual prior art references discussed by Dr. Adams…" It appears that Dr. Harris is saying that, in his following analysis, he will simply ignore the references for which he has no comment. This perspective is validated because Dr. Harris does not discuss the "individual prior art references" individually in his "analysis." He combines all of the Dallas Semiconductor product literature into a single group to avoid having to comment on the individual teachings of the different documents, particularly the DS2407 Data Sheet and Application Notes 104 and 106.

Dr. Harris is wrong on page 25 of his Report where he states that: "The individual solenoid locks for each object require a large number of solenoids, which are not only costly, but add very significantly to the fabrication cost and complexity compared to the single solenoid locked drawer approach of the '628 and '379 Patents." Figure 5 of the '379 Patent clearly shows a solenoid lock on each of the trackable objects, and this embodiment is discussed in column 9, line 55 – column 10 line 67 of the '379 Patent. It appears that Dr. Harris did not read and understand the embodiments disclosed in the '379 Patent. Solenoids on each key tag (or trackable object) afford additional security by providing selected access to individual keys (or trackable objects) while allowing a more general access to the drawer.

Dr. Harris is also wrong on page 25 of his Report where he states that "The addressable switch allows one to use $2\sqrt{N}$ connections for the wiring matrix to the receptacles in the drawer while the system without the addressable switch requires 2N connections (for a drawer with 50 receptacles, 20 vs. 100 wires). This limitation is obvious from Watchmans' description of a 40

receptacle cabinet as fitting more than 80 wires into the cabinet created a significant challenge." Not only does he not provide a cite to this reference, he cannot. There is no such description in the Morse Watchmans ' 324 International Patent Application, in fact, to address the touch memory devices, Watchmans (see Fig. 27 and 28) uses five row wires for the ground lines, and eight column lines for the data, for a total of only 13 wires to connect to the touch memory devices in 40 receptacles, not the 80 wires that Dr. Harris alludes to. The Morse Watchmans ' 324 International Patent Application does not teach or imply running two independent wires to each socket. It appears that Dr. Harris did not read and understand the Morse Watchmans ' 324 International Patent Application, nor did he understand all of the embodiments of the ' 379 Patent. If Dr. Harris cannot read and understand the teachings of these patents, how can he be expected to understand an obviousness analysis that depends on an analysis of multiple prior art references?

On page 25 of his Report, Dr. Harris is wrong (as discussed above) and further, he ignores the teaching of Application Notes 104 and 106 when he states "The combination of the addressable switch and LED are key elements in the ' 379 Patent as they allow a great simplification of the system in no longer requiring a solenoid to lock the trackable objects as taught in Watchmans, but only identifying the appropriate object by the illuminated LED." Again, Dr. Harris has missed the whole point of the solenoid. The purpose of the solenoid in **both** the Morse Watchmans ' 324 International Patent Application and the ' 379 Patent is to lock the trackable object in place so that it can't be removed. As discussed above, there are advantages to this type of system if the security needs of the customer warrant the additional system cost. It is clear that Dr. Harris does not understand the teaching of the Morse Watchmans ' 324 International Patent Application or the ' 379 Patent.

On page 26 of his Report, it is clear that Dr. Harris is misinformed. KeyTrak's U.S. Patent No. 5,801,628 (the "'628 Patent") has never been, and cannot be considered, prior art. As discussed above, if Dr. Harris is unable to form an independent opinion on what is and what is not prior art, his analysis is defective.

On page 27 of his Report, Dr. Harris agrees with me that, in the "50 Ways" reference, the DS2404 is adapted to serve as an addressable switch, that is, the DS2404 performs the same function as an addressable switch to accomplish the same purpose. He states; "The 'Light-In-A-Can" package includes an indicator LED, a DS2404 chip (which is NOT an addressable switch, but a dual memory plus time circuit which has been adapted to serve as an addressable switch, and very poorly so in my opinion) and a 4.3V Zener diode in series with the LED to drop 4.3V from the data buss line, which supplies power to both the DS2404 chip and LED." Here, Dr. Harris admits that other Dallas Semiconductor 1-wire parts can be adapted, no matter how poorly, to the task. As such, this suggests using an addressable switch, no matter how poor a substitute for the real thing the implementation may be. In addition, Dr. Harris admits that '50 Ways' suggests the use of a current limiting component (the Zener diode) in series with the LED. However, KeyTrak cannot validly claim that this is taught by '50 Ways" and was before the examiner, while simultaneously claiming that these elements are unique innovations worthy of a patent.

The fact that "50 Ways" states that the Light-In-A-Can is an 'Engineering Prototype" is irrelevant. Whether or not something is in production is irrelevant to whether or not the elements of the claim limitations are disclosed in relevant prior art material.

On page 28 of his Report, Dr. Harris makes a correct statement when he says '[t]he DS2407 Addressable Switch is not described in the Dallas Semiconductors '50 Ways to Touch

Memory" application note" and it is not possible to tell from the description of the DS2405 (undated page) how it works. However, Dr. Harris is not clear when he states on the same page: "The brief description on page KRS(CA) 344 at least defines some of the important properties of the DS2405 addressable switch, but makes no mention of its possible applications,…" Dr. Harris does not say what "some of the important properties" are. In fact, the brief description given of the DS2405 is insufficient for anyone to determine how the part works. It is not clear whether or not Dr. Harris realizes that he is attempting to make a case for both sides of the same argument: first, that "50 Ways" discloses an addressable switch equivalent, us ed to light an LED, and, the opposite position that "50 Ways" does not disclose an addressable switch that can be used for a specific application.

Dr. Harris is wrong on page 29 of his Report when he states that I have failed to "analyze and articulate the differences between the various prior art references and the claims of the ' 379 Patent." It appears that he has not understood what the Claim Charts attached to, and the text of, my December 12 Report explicitly demonstrate. In my December 12 Report, each asserted claim is considered independently and the motivation to combine references is discussed in the text. In the Claim Charts in my December 12 Report, I cite multiple prior art references for some of the limitations to demonstrate how there were multiple teachings of specific claim limitations. In the Claim Charts, each claim has its own distinct subset of prior art references. In his Report Dr. Harris never explicitly discusses or opposes any of the stated motivations to combine discussed in my December 12 Report.

My objective for the Claim Charts in my December 12 Report was to supplement the Examiner's analysis to include those references that were not before the Examiner to demonstrate how these additional references render even the new claims invalid. To clarify my

December 12 Report, I have prepared a chart similar to those which Dr. Harris prepared to analyze the "technology gap", but I have included all claims and all prior art references individually to show how each reference individually teaches specific technical elements of the claim limitations. (*See* Exhibit 7.). This chart demonstrates that for each claim limitation, one or more of the prior art references explicitly teaches the claim limitation, while other references support the conclusion of obviousness, particularly when combined with the other references. Therefore each of the asserted claims as a whole is rendered obvious in light of these prior art references.

As demonstrated in the '379 Patent prosecution history, the Examiner considered "50 Ways" to be the primary reference with the Morse Watchmans '324 International Patent Application secondary. From there, I have only included the four references that were not before the Examiner when he made his determination of allowability of the new claims of the '379 Patent.

Dr. Harris repeatedly mentions that: "Dr Adams report cites not just two or three references against the claims, but as many as 5 or 6 references that must be combined to meet all of the claim limitations." There is no limitation on the number of references that may be combined in an obviousness analysis. According to section 2145 of the USPTO MPEP:

> "Reliance on a large number of references in a rejection does not, without more, weigh against the obviousness of the claimed invention. In re Gorman, 933 F.2d 982, 18 USPQ2d 1885 (Fed. Cir. 1991) (Court affirmed a rejection of a detailed claim to a candy sucker shaped like a thumb on a stick based on thirteen prior art references.)."
>
> *See* MPEP 2145, found at http://www.uspto.gov/web/offices/pac/mpep/documents/2100_2145.htm#sect2145.

It appears that Dr. Harris' lack of understanding of the scope of patent law has affected his ability to form accurate conclusions. This observation is further supported by his reliance on KeyTrak's counsel to support his proposition that "…merely upon finding similar elements in separate prior patents would necessarily destroy virtually all patents…" (Harris Report, page 31 and footnote 13).

On page 32, footnote 14, Dr. Harris' statement that '50 ways teaches using trackable objects but not in a key control application" is wrong. Page 3 of the "50 Ways" reference (Bates: KT-C-0000139) shows a key fob with a touch memory device. Page 20 of this reference (Bates: KT-C-0000156), examples 22 and 23 show a touch memory attached directly to a key, and to a key fob, respectively. Example 26 also shows a touch memory attached to a key fob for controlling access. This is clearly a key tracking and control system, albeit not one with a central repository for the keys, but it is hardly a great leap, particularly given the Morse Watchmans ' 324 International Patent Application to envision both a central repository and an access control system being used together. Dr. Harris also ignores the Examiner' s rejection of Claims 2-74 (Bates: PH1:094-PH1:100) as being obvious due to the '50 Ways" reference. This fact makes the blank in the first row and the 50W column of Dr. Harris' s table on page 32 incorrect.

In addition, by combining the Dallas Semiconductor references, Dr. Harris avoids recognizing the teaching of the DS2407 Data Sheet and Application Notes 104 and 106. None of his footnotes on page 32 address what each of the Dallas Semiconductor references teach individually. Finally, throughout his discussion, Dr. Harris ignores the fact that the ' 379 Patent claims are not limited to a key tag (key fob). As the Court has ruled, the ' 379 Patent claims can apply to a container or other trackable objects.

Likewise, footnotes 17 and 18 on page 32 are misleading: as discussed above, the "50 Ways" reference clearly shows a 1-wire device attached to a key. Also, the "50 Ways" reference shows how to track objects (for example, carts and containers) that could hold keys or other objects.

Dr. Harris is wrong on page 33 of his Report where he states: "As amply illustrated in the claim chart above, the combination of prior art references cited by Dr. Adams, taken as a whole, do not combine to teach a full disclosure of all of the various claim elements of claim 1 of the '379 Patent." He has chosen to ignore the teachings of three important references. Had he performed a more complete analysis, as I demonstrate in Exhibit 7, he would have seen that all the claim limitations are explicitly disclosed or are obvious on the basis of the references. Also, Dr. Harris does not explain what the "missing elements" are that must be supplied by a "person of ordinary skill." I cannot determine from his Report explicitly what he believes is "missing" from the prior art references taken as a whole.

Dr. Harris is correct on page 34 of his Report that the DS2404 chip is used as an addressable switch when he states: "While this DS2404 memory and timing chip might be used as an addressable switch, it does not teach the use of an addressable switch and it is also notable that the Light-In-A Can is labeled an "engineering prototype", which I don't believe was ever produced as the circuit will be extremely sensitive to voltage on the data bus and operating temperature because of the Zener diode used to drop the voltage applied across the LED."

However, as discussed above, whether the circuit in question was actually produced is irrelevant; only issue is what the reference suggests. By using the DS2404 as an addressable switch, it does not take a great leap to substitute another Dallas Semiconductor 1-wire device that is explicitly called an "addressable switch" for the DS2404 device. The motivation to make this

substitution would be to reduce the cost (by using a less complex device) and the number of leads, since the Data Sheet for the DS2404 indicates that the only available package configuration for the device is a 16-pin flat pack. (*See* Exhibit 4.).

Dr. Harris has made a misstatement on page 34 of his Report where he says: "One must then combine the Morse Watchmans or KeyTrak '628 Patents with the 50 Ways Application Note and the DS2407 Data Sheet …" It is not the '628 Patent that is combined with the Morse Watchmans '324 International Patent Application and the other references; rather, it is the Maloney '687 International Patent Application prior art reference that is combined with the other references. However, Dr. Harris is correct in his further statement in the same sentence that together, these references may be combined "…in order to have all of the elements in the '379 Patent."

Dr. Harris's conclusion on page 34 is defective when he states: "It is my opinion that a person of ordinary skill, as defined by Dr. Adams, would be incapable of making the necessary combination of prior art references as discussed more fully in a later section of my report." because he does not properly understand the characteristics of a PHOSITA for the purposes of a Section 103 obviousness analysis, and he ignores the educational level and experience of Mr. Maloney at the time he filed the applications for the Maloney '687 International Patent Application and the provisional '954 Application, from which the '379 Patent was ultimately issued on September 5, 1995 and September 1, 1998, respectively. (*See* Exhibit 1 and 2.). Also, if it is further Dr. Harris' opinion that "…someone of ordinary skill would be incapable of supplying the missing elements without guidance from further documentation or a senior, supervising engineer." he does not explain how a person of Mr. Maloney's education and

experience could develop such a product without access to the data sheets and application notes that describe how to use an "addressable switch."

Finally, Dr. Harris' statement on page 34 "In summary, Dr. Adams' analysis is deficient in that: (i) he fails to recognize any "gap" between the combined teachings of the references and the invention of claim 1; and (ii) he fails to explain how someone of mere ordinary skill art would be capable of bridging such a "gap" out of nothing more than his or her own knowledge and experience." is conclusory because he offers no analysis of the motivations to combine that are detailed in my December 12 Report. The fact is that there is no 'gap' between the prior art and the '379 Patent, as demonstrated in my December 12 Report and in Exhibit 7.

In his approach, Dr. Harris has violated one of the foundations scientific methodology: he has assumed that what he is trying to prove is true, as opposed to questioning the hypothesis, testing the hypothesis, and being unable to prove that the hypothesis is false. As stated above, using un-validated assumptions leads to incorrect conclusions.

On page 35 footnotes 22, 23, and 25 of Dr. Harris's Report, he argues that the Maloney '687 International Patent Application and the Morse Watchmans '324 International Patent Application do "not have a "housing" *per se*." and that "The Dallas Semiconductor literature teaches the combination of addressable switches and LEDs, but does not teach or suggest that such circuits can be inserted into the interior "housing" space within a key -tag." In making these statements, Dr. Harris has ignored the Court's claim construction order which states "This order holds that "housing" means protective case or container." and "but while the housing may take the form of a carrier for items to be tracked, this order finds that it need not do so." (Claim Construction Order for United States Patent No. 6,501,379, page 5, line12 and lines 18-19.) Under the Court's claim construction order, the iButton can containing the Dallas Semiconductor

integrated circuit chip is a "protective case or container" for the integrated circuit chip and other circuitry as shown in the 50 Ways reference, example 43, Internal Diagram of Light-In-A-Can (Bates: KT-C-0000169). As discussed in my December 12 Report, this "housing" can take any shape or form.

Footnote 31 on page 35 is misleading. As discussed above, the "50 Ways" reference clearly shows a 1-wire device attached to a key tag. Also, the "50 Ways" reference shows how to track objects (for example, carts and containers) that could hold keys or other objects. Also, as discussed above, the "50 Ways" reference does teach the use of a "housing" for protecting electronic circuitry.

On page 36 of his Report, Dr. Harris's statement that "Dr. Adams' proposed combination does not teach all of the recited claim elements and someone of ordinary skill would be incapable of supplying the missing elements." is conclusory because, as in his discussion of claim 1, Dr. Harris fails to specify what the "missing elements" are, and why a person having ordinary skill would be unable to supply the missing elements. Therefore his following statement that: "Dr. Adams' proposed combination does not teach a trackable object with circuitry, including an addressable switch and LED in the housing of the trackable object, and with three electrical conductors on the lower portion of the trackable object that mate with corresponding electrical contacts in a socket." is also conclusory.

Footnote 35 on page 36 is wrong for the same reasons as footnote 14, page 32, discussed above. That is, "50 Ways" clearly shows the use of tracked keys, and "50 Ways" also clearly shows the use of a computer-based controller together with the Light-In-A Can.

Dr. Harris' chart of Claim 10 on page 36 is inconsistent his chart of Claim 6 on page 35. On page 35, in the last limitation of Claim 6, he admits that both "50 Ways" and the three Dallas

Semiconductor references (DS2407 Data Sheet, and Application Notes 104 and 106) teach "Said addressable switch having a ground port, a data port, and an I/O port and said set of electrical conductors including a first conductor electrically coupled to said ground port, a second conductor electrically coupled to said data port, and third conductor electrically coupled through said LED to said I/O port." The "X"s in the columns in the Chart indicate that all of the elements are present in these references. However, on page 36, in the "50W" column he shows an "O" in the row for the claim limitation: "An addressable switch in each of said trackable objects, each addressable switch storing an identification code by which its trackable object may be identified and having at least a ground terminal, a data terminal, and an input/output (I/O) terminal;" He has previously agreed that the DS2404 shown in the "Internal Diagram of Light - In-A Can" figure (KT-C-000169) is used as an addressable switch (see discussion above). The Light-In-A Can is clearly used in an object tracking and control system. Therefore, there should be an "X" at least in the "50W column.

In addition, as discussed above, "50 Ways" and the other three Dallas Semiconductor references also teach the use of a computer-based controller in an object tracking system. Therefore, there should be "X"s in the last two columns and the bottom row of the table on Page 36.

As shown in Exhibit 7, I disagree with other portions of Dr. Harris' analysis of Claims 1, 6, and 10 as well.

On page 37 of his Report, Dr. Harris's statement that "Dr. Adams' proposed combination does not teach all of the recited claim elements and someone of ordinary skill would be incapable of supplying the missing elements" is conclusory because, as in his discussions of Claim 1 and Claim 6, Dr. Harris fails to specify what the "missing elements" are, and why a person having

ordinary skill would be unable to supply the missing elements. Thus, his following statement that: "Dr. Adams' proposed combination does n ot teach a trackable object with circuitry, including an addressable switch with an identification code and LED in a trackable object, and with three electrical conductors on the lower portion of the trackable object that mate with corresponding electrical contacts in a socket." is conclusory as well.

On page 37, under Section 5, captioned "Level of Skill in the Pertinent Art," Dr. Harris states that "Systems generally integrate quite disparate technologies from many fields…" and then concludes that this must be the case here, with nothing to support that conclusion. On page 38 he claims that "it takes a number of years to accumulate the knowledge of very different fields and to be able to conceive the integration of quite different components for a complete system." In my experience, exactly the opposite is true: in many cases, it is youth and lack of experience that *allow* a person to conceive of combining things from widely disparate fields. People with long experience in a particular area typically become far more "stuck in a rut" and will resist such combinations for little or no reason. It is those who don't know that "it won't work" who are often the most innovative at combining technologies. Also the systems that Dr. Harris alludes to on pages 37 and 38 are much more complex than the system of the ' 379 Patent.

In the second paragraph on page 38 (section b. Education and Experience Level of Someone of "Ordinary" Skill. ), Dr. Harris ignores the educational level and experience of Mr. Maloney. As discussed above, Mr. Maloney had about two years of experience at the time of the filing of the Maloney ' 687 International Patent Application in September 1995. (*See* Exhibits 1 and 2.). He also ignores the fact that KeyTrak has agreed to the definition of a person having ordinary skill in the art. (*See* KeyTrak' s PowerPoint Presentation to the Court dated September 25, 2003, p.4, attached as Exhibit 5; *see also* Exhibit 2). If Dr. Harris believes that a

person having ordinary skill should be defined differently, he should clearly state what those criteria should be, and what his rationale is for those criteria, rather than making the vague statement that "For the purposes of analyzing the non-obviousness of the '379 Patent, I do not intend to offer an opinion that the level of ordinary skill in the art with respect to either education or experience is any lower than that of Dr. Adams' opinion."

At the bottom of page 39 and the top of page 40, Dr Harris states that the '379 Patent involves electrical engineering, mechanical engineering and computer science and that he believes that "…only the most exceptional, if any, engineer as defined as one possessing ordinary skill in the art might be capable of understanding the broad range of components and system integration issues that are defined in the '379 Patent." As an engineer right out of school, I was designing, building, and testing circuits that are more complex than anything contained in the '379 Patent. I have worked with technicians with associates degrees and less than 2 years of experience that would be capable of integrating the software and hardware for a system such as that disclosed in the '379 Patent. If Stanford University has only taught LEDs to undergraduates in the last two years, they are severely lagging their curriculum. Courses in the use and applications of LEDs were being taught at schools such as Northern State University in South Dakota as much as 10 years ago. Dr. Harris does not appear to be aware of the fact that there are robotics competitions in high school where high school students design and build robots to perform a variety of tasks. These robots incorporate mechanical functions with radio control, sensors, analog and digital circuitry as well as a substantial amount of software development. These systems are more complex than the system disclosed in the '379 Patent.

On pages 41-43 of his Report, Dr. Harris appears to be under the mistaken impression that, for a prior art reference to "teach" that it should be combined with a nother, it must

explicitly reference another place or document or that there must be text which explicitly states that one should combine all of the elements together. This is not true. As stated in my December 12 Report, the reason, suggestion, and motivation to combine may be found explicitly or **implicitly**:

> 1) in the prior art references themselves;
> 2) in the knowledge of those of ordinary skill in the art that certain references, or disclosures in those references, are of special interest or importance in the field; or
> 3) from the nature of the problem to be solved leading inventors to look to references relating to possible solutions to that problem. The references need not expressly teach that the disclosure contained in them should be combined with the other references; the showing of combinability is clear and particular. As long as some motivation or suggestion to combine the references is provided by the prior art taken as a whole, there is no requirement that the references must be combined for reasons contemplated by the inventor.

I do explicitly provide references in both the text and the claim charts of my December 12 Report that show how specific elements of the asserted claims of the ' 379 Patent explicitly teach elements of the claim limitations. Dr. Harris is careful to qualify his disagreement with my conclusions by making the statement: "In disagreeing with Dr. Adams, I am mindful of the admonition that someone of ordinary skill in the art is one who thinks along the line of conventional wisdom in the art and is not one who undertakes to innovate." As I have pointed out above, the "not one who undertakes to innovate" is taken out of context and is an incorrect assumption, and therefore leads to an incorrect conclusion by Dr. Harris.

At the top of page 42 of his Report, Dr. Harris is very careful in his language to avoid a direct misrepresentation of the facts when he states: "I do not detect, in the foregoing **language**, any teaching or suggestion that a circuit containing an addressable switch and a LED should be mounted into a key-tag in a key control system," (emphasis added) but fails to note (as discussed

above) that the "50 Ways" reference shows a touch memory device mounted to a key and to a key tag. As such, elementary research of simply reading the entire document provides precisely what he says that the "50 Ways" reference does not teach.

On page 44 of his Report, Dr. Harris again errs due to his assumption about the capabilities of a person of ordinary skill in the art. He states: "In order for Dr. Adams to reach his ultimate conclusion, he must reason that someone of ordinary skill in the art who, by definition, is not one who undertakes to innovate, would necessarily foresee every conceivable product application that could come from using addressable switches coupled with LED's." This is not true. A person of ordinary skill in the art applicable here is one who is working in a closely related field and is generally familiar with the problems and issues of the related technology and applications. Such a person would not have to "forsee every conceivable product application" to be able to discern every element of the ' 379 Patent from the prior art, only those applications and the technology specifically related to the problem at hand.

At the bottom of page 44 of his Report, most of Dr. Harris' conclusions regarding the capabilities of a person having ordinary skill appear to be based on his experience in industry with large, old, and highly stratified companies, in which young engineers are not allowed to innovate. For example, he states: "In my experience, persons with only a Bachelors Degree and 2 to 4 years experience are rarely, if ever, given responsibility for designing a complete system on the order of complexity as that described in the ' 379 Patent." Note that this says nothing about the *capability* of the person, but only about the fact that within his industrial experience, young engineers are not given the opportunity to take on the responsibility for a project. Again, he ignores the education and experience of Maloney at the time of the Maloney ' 687 International Patent Application and the application which ultimately led to the ' 379 Patent

If Dr. Harris does believe that "…persons with only a Bachelors Degree and 2 to 4 years experience, such a person would be considered to have performed admirably if he or she could actually build a device in accordance with the ' 379 Patent if they were given the entire patent and requested to build a device in conformity therewith." then perhaps the patent should be declared invalid under 35 U.S.C. § 112 for lack of enablement, particularly in view of Dr. Harris' definition of a person having ordinary skill in the art.

On page 45 of his Report, Dr. Harris is wrong when he states that 'Thus, the prospect that '50 Ways" and Morse Watchmans" might be combined to render obvious some invention in a canceled claim that is not even involved in this lawsuit strikes me as irrelevant to the issue before us." The examiner's rejection o f substantially similar claims, with the explicit statement that some of the claims are rejected for anticipation under 35 U.S.C. § 102, in light of "50 Ways" and the remainder of the claims are rejected for obviousness under 35 U.S.C. § 103 in view of "50 Ways" and the Morse Watchmans ' 324 International Patent Application is probative evidence that the Examiner considered many of the same claim limitations to be taught by these two references. An obviousness analysis of the ' 379 Patent cannot ignore this evidence. In addition to these two references that were before the Examiner, there are four additional references that were not before the examiner which I considered in my analysis. I did not rely solely on the rejection of the original claims by the Examiner to form my conclusions. What I did do was to use the evidence of the rejection to determine what the Examiner may have considered patentable distinctions in the allowed claims. Dr. Harris ignores the specific statements made by the examiner in the Examiner's notice for rejection when Dr. Harris states: "I can think of two possible reasons for the Examiner to have allowed the Infringed Claims: (i) the Examiner did not believe that the combination of '50 Ways" and Morse Watchmans taught the inventio n claimed

in the Infringed Claims; or (ii) the Examiner did not believe that there was a teaching, suggestion, or motivation to combine "50 Ways" and Morse Watchmans in order reach the invention claimed in the Infringed Claims." This statement is irrelevant to the analysis I performed. Further, and more importantly, Dr. Harris completely ignores the fact that, in my analysis, there are four additional references that were not before the examiner when he allowed the new claims. It is these four references in addition to the "50 Ways" and the Morse Watchmans ' 324 International Patent Application references that invalidate the new claims.

On page 46 of his Report, Dr. Harris has completely misinterpreted what I state in my report. I do not state, as he has alleged: "Dr. Adams, at page 32 of his report, asserts that there are no secondary considerations of nonobviousness present with respect to analyzing the validity of the ' 379 Patent. He further states, at page 32 of his report, that such absence 'reinforces the conclusion that the patent is obvious." I am merely stating that they must be considered as part of an overall analysis. These secondary considerations are discussed in my September 4 Affidavit, and there is case law to support the statement that secondary considerations may be used to support a finding of obviousness under 35 U.S.C. § 103. (*See*: *Ecolochem, Inc. v. Southern California Edison Co.*, No. 99-1043 (Fed. Cir. Sept. 7, 2000).). In my December 12 Report, I am merely stating that KeyTrak is attempting to obfuscate these issues, and Dr. Harris's statements support that conclusion.

It is clear from his own statements on page 47 of his Report that Dr. Harris has made no attempt to understand or form his own opinion about the issues of secondary considerations. He states: The secondary considerations discussed below have been furnished to me by counsel and are listed under the "assumptions" section at the beginning of my report. I have not undertaken an independent investigation into the existence of secondary consideration of non-obviousness.

Such an independent investigation is outside the scope of my present engagement." As such, the discussion in sections 8, 9, and 10 of his report are, by his own admission, "outside the scope of his present engagement." and should be excluded from his report. It is also my understanding that the discussion in these sections is inaccurate and misleading, particularly the fact that KeyTrak is attempting to allege that the Key Register product has always infringed the '379 Patent. This is not true. There was no possibility of infringement until the newest claims were allowed and the certificate of correction to the '379 Patent was issued on February 11, 2003, less than one year ago, and there is still the issue of the validity and enforceability of the '379 Patent.

I have not been asked to review or comment on the Prado patent application for the Key Register system. However, section 10 on pages 49 and 50 of Dr. Harris's Report seems to take for granted (without presenting even minimal evidence) that the Key Register patent application has nothing new or different from the '379 Patent. That basic assumption pervades everything stated here, and without it, the entire section is irrelevant. In addition, since the Prado application is not issued, the allowable claims are not yet defined, so no conclusions can be drawn about whether the Prado patent will require the use of the '379 Patent or not. Finally, this section fails to show any comparison between the Prado application and the '379 Patent claims, to demonstrate even a minimal relationship between them.

In addition, Dr. Harris's Report fails to reflect certain important facts. Dr. Harris's Report fails to state that while KeyTrak's application Serial No. 09/792,987 (the "'987 Application"), and which was filed on February 26, 2001, KeyTrak purchased a Key Register System in late August or early September 2001, took the Key Register System apart, thoroughly examined it (*see* Deposition of William Maloney, April 24, 2003, at 121-122, 134, attached as Exhibit 6), and subsequently amended its '987 Application in April 2002 to make new Claims 75-86, which have

now been renumbered 1-10 after consolidation of Claims 80, 81, 82, and new Claim 80, and now Claim 6. Thus, KeyTrak did not make the claims in the '379 Patent which are at issue in this case until **after** KeyTrak acquired a Key Register System, took the Key Register System apart, analyzed it, and made the claims in the '379 Patent that the Key Register System's keycom device infringes according to the Court's October 9, 2003 Order. Accordingly, KeyTrak was able to design its '379 Patent claims before the '379 Patent was ever issued to match Key Register Systems's keycom device, and thereby create, for the first time, claims in the '379 Patent that Key Register could be found to have infringed if KeyTrak's '379 Patent were to be issued and KeyTrak were to file a complaint alleging infringement.

Furthermore, the established facts are that Key Register and its principals did not know of the '379 Patent until KeyTrak brought the patent to Key Register's counsel's attention in early March 2003, after KeyTrak had already filed its complaint against Key Register in this case, and before Key Register had been served with a copy of the complaint.

Most of section D on pages 52-60 of Dr. Harris' report appears to be irrelevant. Dr. Harris admits that "Many of the issues discussed in Dr. Adams' report on the subject of inequitable conduct, particularly the legal issues, are outside of my field of expertise." Key Track has admitted the material in the Maloney '687 International Patent Application is relevant and that they failed to disclose the fact that the material in the Maloney '687 International Patent Application material had been published more than 12 months prior to the application for the '379 Patent. Key Register's expert witness, Michael Slobasky, Esq., a patent attorney and former USPTO examiner, has offered the opinion that "9. In my opinion, as a former Patent and Trademark Office Examiner, I do not believe that a reasonable examiner, in examining the application that resulted in the '379 Patent, would have regarded the '628 or '441 Patents' prior art

with respect to U.S. patent application Serial No 09/792,987, which resulted in the '379 Patent simply because the dates are not early enough to be regarded as prior art where the same inventive entity is involved. A reasonable examiner, on the other hand, would have regarded the International Application as prior art because it was published more than one year before the earliest possible effective filing date of the application that resulted in the '379 Patent." (*See* Sloblasky Declaration, December 12, 2003, p. 4 ll. 17-20.). The issue for unenforceability is not the similarity between prior art references; rather it is whether KeyTrak willfully withheld known relevant art. It appears that this section is a further attempt by KeyTrak's counsel to further confuse, rather than clarify the issues.

On page 62, Dr. Harris states: "I note the complete absence in Dr. Adams' report of any discussion or analysis of the '235 Application and its allowed claims." While it is true that the '235 application has been published, the claims in the published application of April 18, 2002 bear no resemblance to those that were allowed by the examiner on October 14, 2003. Dr. Harris also states: "Furthermore, counsel for KeyTrak has advised me that the pertinent portions of the prosecution history of the '235 Application have been produced to Key Register in discovery." To the best of my knowledge, these newly allowed claims were not produced to Key Register's Counsel until December 12, 2003, the day that my expert report was due, and I did not receive them until December 18, 2003. I did not comment on them in my December 12 Report because I did not have the documents. This is further evidence that KeyTrak tries to hide relevant evidence until it is too late for me to properly respond.

I will comment on the facts of the '235 Application to the extent I can with the information I currently have. I reserve the right to supplement this report in the event that further document productions or depositions disclose relevant information.

The table in Exhibit 3 shows the timeline for the prosecution of the '235 Application. It is clear from the time line that the original claims were rejected. Claim 1, the only remaining claim was cancelled on June 10, 2003 and new claims were added that included an addressable switch. Only a partial (and redacted) prosecution history on the '235 Application was produced by KeyTrak. Therefore, I cannot determine the reasons that the Examiner rejected the original claims.

The only difference between the 9/8/2003 Notice of Allowance (KT-C-0013275-6) and the 10/14/2003 (KT-C-0013252-3) Notice of Allowance is the addition of the sentence: "An LED is connected to the addressable switch for activating the LED upon receipt of the identification code communicated by the computer." Therefore, it is clear that the Examiner believes that the patentable distinction for the '235 Application over the produced prior art, is an LED connected to the addressable switch. An LED connected to an addressable switch is clearly demonstrated in the Dallas Semiconductor Application Notes 104 and 106, which were not produced to the Examiner at the time KeyTrak filed its Request for Continued Examination of the '235 Application on September 24, 2003.

KeyTrak did not provide the Examiner with the Court's *Markman* claim construction ruling in this case, nor, to the best of my knowledge, have they yet provided the Examiner with either Dallas Semiconductor Application Note 104 or 106. These Application Notes explicitly show an LED connected to the addressable switch. Therefore, Dr. Harris' statement on page 62 of his report that: "In summary, given the similarity in the allowed claims of the '235 Patent to the Infringed Claims, the fact that the same examiner allowed both applications, and the foregoing analysis, it is my opinion that Examiner Van Trieu i) had all of the relevant prior art before him and ii) could see the clear differences in the claims of the '379 Patent and that he

would likely have allowed the '379 Patent to issue over the KeyTrak PCT Application, even if it had been cited during prosecution." is false, in that the Examiner did not have all of the relevant prior art before him because he did not have the Application Notes 104 and 106, and is incomplete, in that his comment is only relevant to the Maloney '687 International Patent Application, and does not address the other elements of prior art (the 104 and 106 Application Notes) that to the best of my knowledge have still not been produced to the Examiner.

## V. CONCLUSION

For the reasons set forth in my December 12, 2003 Report, my September 4 Affidavits, and in this Rebuttal Report, it is my opinion that each of the claims in KeyTrak's '379 Patent, as a whole, is rendered obvious based on the combination of material prior art I have referenced, and that the '379 Patent is invalid under 35 U.S.C. § 103(a). It is my further opinion that KeyTrak and its agents have engaged in inequitable conduct by withholding the material prior art from the USPTO in connection with the '379 Patent which I have identified in my December 12 Report, and which if disclosed, would have rendered each of the claims in the '379 Patent, as a whole, obvious.

Respectfully submitted under penalty of perjury this 29th day of December, 2003:

***Duly Signed Copy on File at Offices of Shughart Thomson & Kilroy, P.C.***

_____

James R. Adams
Chief Technology Officer
TAEUS
101 North Cascade, Suite 400
Colorado Springs, CO 80903

# EXHIBIT 3

| Date | Reference/ Bates No. | What |
|---|---|---|
| 9/11/98 | US 2002/0044055 A1 | Provisional application 60/099,954 filed |
| 9/9/99 | US 2002/0044055 A1 | Non-provisional application 09/393,225 filed |
| 2/26/01 | US 2002/0044055 A1 | Continuation application 09/792,987 filed |
| 12/5/01 | US 2002/0044055 A1 | Continuation application 10/005,235 filed |
| 4/18/02 | US 2002/0044055 A1 | Patent application published |
| 12/11/02 | KT-C-006836 | Reference to official office action |
| 12/11/02 | KT-C-0013278 | 1st Office Action |
| 12/30/02 | KT-C-0013278 | 1st Office Action received |
| 6/10/03 | KT-C-006834 | Fax from Steve Kerr to Van Trieu re. amendment, extension, fees. Amendment cancelled claim 1 and added claims 21-43. |
| 6/10/03 | KT C 0013278 | Response to 1st Office Action |
| 7/31/03 | KT-C-006833 | Note: "Called Van Trieu 7/31/03. He said docketing received this fax and is tracking down what happened to the first one. He will call when he gets it. SK |
| 8/25/03 | KT-C-0013277 | Page with portions redacted scanned. |
| 9/2/03 | KT-C-0013276 | First Notice of allowance of application number 10/005,235 signed by Van Trieu |
| 9/8/03 | KT-C-0013270 | First Notice of allowance of application number 10/005,235 mailed |
| 9/23/03 | KT-C-0013261 | Letter from Suzanne Skinner to Jennifer Harris-Lohse requesting hand deliver of documents, including "References A-J" |
| 9/24/03 | KT-C-0013279 | RCE Petition to withdrawal from issuance filed. |
| 10/2/03 | KT-C-0013254 | Interview summary, discussion of WO 97/09687 and DALLAS semiconductor DS2407. Agreement WRT claims was reached. |
| 10/14/03 | KT-C-0013252-3 | Examiner signed second notice of allowance. |
| 10/20/03 | KT-C-0013279 | Second notice of allowance issued |
| 10/27/03 | KT-C-0013244 | Payment of issue fee and publication fee |

# EXHIBIT 7

| **PRIOR ART REFERENCES ----->**<br>**USPN 6,501,379 Claim Limitations** V | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| 1. A key tracking and control system comprising: | X | X | X | | | |
| a trackable object associated with each key to be tracked, each trackable object having a lower portion and an upper portion; | X | X | X | | | |
| an openable drawer for removably receiving and storing a plurality of said trackable objects and the keys associated therewith; | | O | X | | | |
| said drawer having an array of internal sockets each configured to receive the lower portion of a trackable object with the upper portion of the trackable object being visible within said drawer; | O | O | X | | | |
| a light emitting diode (LED) in each of said trackable objects, each LED, when lit, emitting light from the upper portion of its trackable object; | X | O | | | X | |
| an addressable switch disposed in each of said trackable objects and having a ground port, a data port, and at least one input/output (I/O) port; | O | O | O | X | O | O |
| each addressable switch storing an identification code by which its trackable object can be identified; | X | X | X | X | X | X |
| at least three conductors on said lower portion of each trackable object, one of said conductors being electrically coupled to said ground port of said addressable switch, another one of said conductors being electrically coupled to said data port of said addressable switch, and a their one of said conductors being electrically coupled through said LED to said I/O port of said addressable switch; | O | O | O | O | X | X |

| **PRIOR ART REFERENCES ----->**<br>**USPN 6,501,379 Claim Limitations** \/ | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| at least three contacts associated with each socket, each contact engaging and making electrical connection with a corresponding conductor on a trackable object when the trackable object is received in said socket; | O | O | O | O | O | O |
| a controller; | X | X | X | X | X | X |
| a communications link connecting said controller to selected ones of the contacts of said sockets and thereby coupling said controller to the data ports of addressable switches within trackable objects disposed in said sockets; | X | X | X | X | X | X |
| said controller being programmed to generate a request and to broadcast said request over said communications link, said request including at least the identification code associates with one of said trackable objects; | X | X | X | X | X | X |
| each addressable switch setting its I/O port to activate said LED upon receipt from said controller of a request that includes the identification code of said addressable switch, said activated LED visually locating the requested trackable object within said drawer. | | | | | X | O |

| **PRIOR ART REFERENCES ----->**<br><br>**USPN 6,501,379 Claim Limitations** V | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| 2. A key tracking and control system as claimed in claim 1 and wherein said addressable switch is mounted on a circuit board in the trackable object. | | | | X | X | X |
| 3. A key tracking and control system as claimed in claim 1 and wherein said LED's in said trackable object, when lit, project light upwardly away from said array of internal sockets. | X | O | | | X | |

| **PRIOR ART REFERENCES ----->**<br>**USPN 6,501,379 Claim Limitations** V | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| | | | | | | |
| 6. A trackable object for use in a key tracking and control system wherein a storage unit has an array of sockets for removably receiving a plurality of said trackable objects, said trackable object comprising: | O | X | X | | | |
| a housing having a bottom portion and a top portion; | X | X | X | | O | |
| an electronic circuit including an addressable switch, said electronic circuit being insertable into said housing; | X | X | X | | X | |
| a set of conductors electrically coupled to said electronic circuit and being positioned on said trackable object such that said conductors are disposed in a socket of said storage unit when said trackable object is received in the socket; | X | X | X | | O | |
| a light emitting diode (LED) in said trackable object, said LED being electrically coupled to said electronic circuit being positioned to emit light from said top portion of said housing when lit by said electronic circuit; | X | O | | | X | |
| said addressable switch having a ground port, a data port, and an I/O port and a set of electrical conductors including a first conductor electrically coupled to said ground port, a second conductor electrically coupled to said data port, and a third conductor electrically coupled through said LED to said I/O port. | X | | | X | X | X |

| **PRIOR ART REFERENCES ----->**<br><br>**USPN 6,501,379 Claim Limitations** V | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| 7. A trackable object as claimed in claim 6 and further comprising a current limiting component in series with said third conductor, said LED, and said I O port of the addressable switch. | X | | | | | X |
| 9. A trackable object as claimed in claim 6 and wherein said addressable switch and said LED are mounted on a printed circuit board insertable in said housing from said bottom portion thereof. | X | | | | X | |

| **PRIOR ART REFERENCES ----->**<br><br>**USPN 6,501,379 Claim Limitations \/** | 50 Ways | WO95/04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| | | | | | | |
| 10. A key tracking system comprising: | X | X | X | | | |
| a plurality of trackable objects, each trackable object having a lower portion and an upper portion; | X | X | X | | | |
| a storage unit for removably receiving and storing a plurality of said trackable objects; | X | X | X | | | |
| said storage unit having an array of sockets configured to receive the lower portions of trackable objects with the upper portions of said trackable objects being visible in said storage unit; | X | X | X | | | |
| an addressable switch in each of said trackable objects, each addressable switch storing an identification code by which its trackable object may be identified and having at least a ground terminal, a data terminal, and an input/output (I/O) terminal; | O | O | | X | X | |
| a light source in each of said trackable objects, each said light source being electrically coupled to said I/O terminal of said addressable switch and being positioned to emit light from the upper portion of its trackable object when lit to indicate visually the location of the trackable object within the storage unit; | X | O | | | O | O |
| a computer-based controller; and | X | O | X | X | X | X |

| PRIOR ART REFERENCES -----> / USPN 6,501,379 Claim Limitations V | 50 Ways | WO95 04324 (Morse Watchmans) | WO9709687 (Maloney) | DS2407 Data Sheet | Application Note 104 | Application Note 106 |
|---|---|---|---|---|---|---|
| a communications link coupling said controller to the data terminals of addressable switches within trackable objects disposed in sockets of said storage unit; | X | X | X | X | X | X |
| each of said addressable switches being adapted to set its I/O port to light its LED upon receipt from said controller via said communications link of a request that includes the Identification Code stored in the addressable switch. | | | | | X | X |

X: The teaching of the claim limitation is explicit in the reference.

O: The teaching of the claim limitation may be inferred (that is that it is Obvious) from the reference.